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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,674	12/05/2003	David H. Shen		3186

7590

03/21/2006

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EXAMINER

VO, NGUYEN THANH

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/729,674

Applicant(s)

SHEN, DAVID H.

Examiner

Nguyen T. Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Drawings***

1. Figures 1-2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

2. Claims 1-17 are objected to because of the following informalities: in claim 1, there must be only one period "." in the claim; therefore, the recitation "said buffer stage connected together. A mechanism" at lines 9-10 should be changed to -- said buffer stage connected together, a mechanism--; the recitation "An amplifier" at line 4 should be changed to --an amplifier--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 1, the claim is indefinite because the preamble of the claim calls for a method claim, while the body of the claim has a structure of an apparatus claim. In order to overcome this rejection, it is suggested that the recitation "A method for selecting a multiple frequency band RF signal and reducing the number of components in a RF system comprising of" at lines 1-3 should be changed to --A multiple frequency band receiver for selecting a multiple frequency band RF signal and having reduced number of components in a RF front end system, wherein the receiver comprising--.

As to claim 2, the recitation "The method of claim 1 wherein the receiver architecture" should be changed to -- The receiver of claim 1 wherein the receiver--.

As to claim 3, the recitation "The method of claim 1 wherein the receiver architecture" should be changed to -- The receiver of claim 1 wherein the receiver--.

As to claim 4, the recitation "The method of claim 1 wherein the receiver architecture" should be changed to -- The receiver of claim 1 wherein the receiver--.

As to claim 5, the recitation "The method of claim 1 wherein the receiver architecture" should be changed to -- The receiver of claim 1 wherein the receiver--.

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As to claim 6, the recitation "The method of claim 1" should be changed to --The receiver of claim 1--.

As to claim 7, the recitation "the LNA" at line 1 lacks clear antecedent basis because there is no "LNA" being introduced before. In order to overcome this rejection, it is suggested that the recitation "The method of claim 1 wherein" should be changed to --The receiver of claim 1 wherein the receiver further comprising a low noise amplifier LNA for each frequency band and--.

As to claim 8, the recitation "The method of claim 1" should be changed to --The receiver of claim 1--.

As to claim 9, the recitation "The method of claim 1" should be changed to --The receiver of claim 1--.

As to claim 10, the recitation "The method of claim 1" should be changed to --The receiver of claim 1--.

As to claim 11, the recitation "The method of claim 1" should be changed to --The receiver of claim 1--. In addition, the recitation "any known amplifier topology" renders the claim indefinite because it is not clear as to what are being claimed.

As to claim 12, the recitation "The method of claim 1" should be changed to --The receiver of claim 1--.

As to claim 13, the recitation "The method of claim 1" should be changed to --The receiver of claim 1--.

As to claim 14, the recitation "the RF chip" at line 2 lacks clear antecedent basis because there is no "RF chip" being introduced before. In order to

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overcome this rejection, it is suggested that the recitation "The method of claim 1 wherein" should be changed to --The receiver of claim 1 wherein the receiver further comprising a RF chip and--. In addition, the recitation "the said image filters" should be changed to --the image filters--.

As to claim 15, the recitation "the RF chip" at line 2 lacks clear antecedent basis because there is no "RF chip" being introduced before. In order to overcome this rejection, it is suggested that the recitation "The method of claim 1 wherein" should be changed to --The receiver of claim 1 wherein the receiver further comprising a RF chip and--. In addition, the recitation "the said image filters" should be changed to --the image filters--.

As to claim 16, the recitation "The method of claim 1" should be changed to --The receiver of claim 1--.

As to claim 17, the recitation "The method of claim 1" should be changed to --The receiver of claim 1--. In addition, the recitation "bipolar, BiCMOS, and SiGe technologies" should be changed to -- bipolar, BiCMOS, or SiGe technologies--.

***Allowable Subject Matter***

5. Claims 1-17 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Regarding independent claim 1, the examiner agrees with applicant that the buffer stages as claimed are what the claimed invention is different from the traditional receiver (see applicant's specification on page 7, the last two lines from the bottom of the page). More specifically, the prior art of record fail to

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disclose or render obvious that the output of said image filters connected to input of a buffer stage for each frequency band, and the output of each said buffer stage connected together, and a mechanism to power down the buffer stages in order to select a frequency band as specified in claim 1.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Snider (6,804,261); Thomsen (6,584,304); Isberg (6,029,052); and Keski-Mattinen (6,405,025) all disclose multiband RF receivers.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen T. Vo whose telephone number is (571) 272-7901. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571)272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nguyen Vo

Nguyen Vo  
3/13/2006